

## SURGICAL VOLUME MAY NOT BE SOLE DRIVER OF URINARY FUNCTION OUTCOME FOLLOWING RADICAL PROSTATECTOMY

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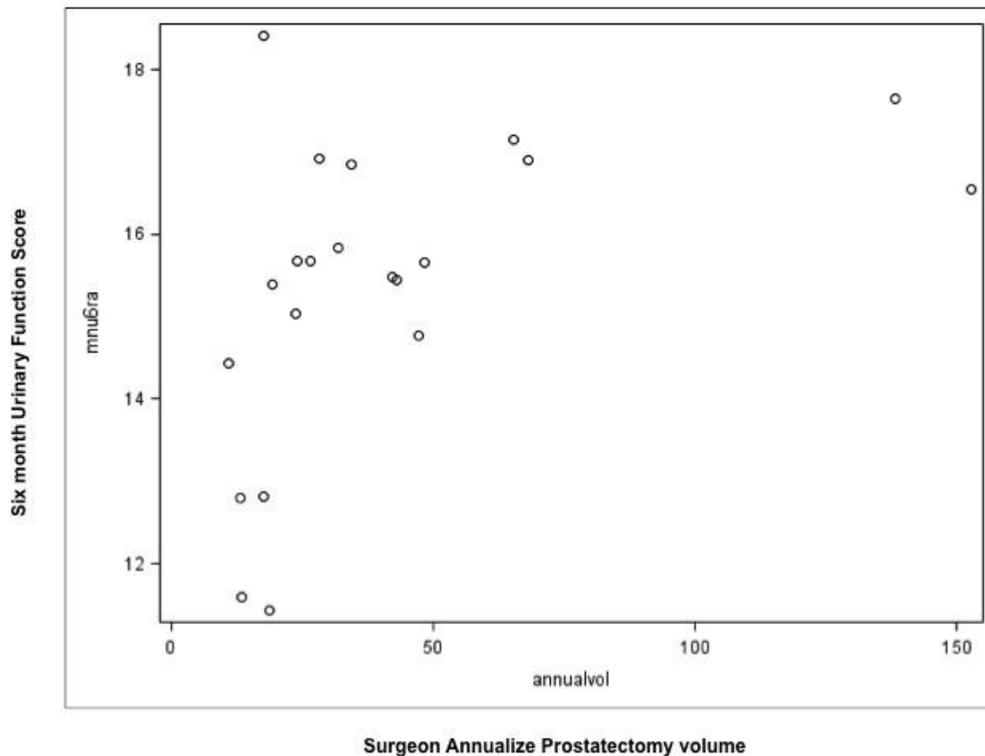
**INTRODUCTION AND OBJECTIVE:** A broad base of surgical literature supports the notion that surgeons with high procedural volume attain superior surgical outcomes. Nonetheless, the practical application of this concept, the referral of all patients to a few select surgeons, is not feasible in our current healthcare framework. Within the context of the Michigan Urologic Surgery Improvement Collaborative (MUSIC),<sup>1</sup> we sought to further explore the relationship between annual prostatectomy volume (APV) and patient reported urinary function (UF) following radical prostatectomy (RP).

**METHODS:** The MUSIC patient reported outcomes (PRO) project assesses urinary and erectile functional status for men undergoing RP via surveys collected before and at 3, 6, 12, and 24 months after surgery.<sup>1</sup> Surgeons included for analysis had  $\geq 50\%$  patient enrollment in PRO and  $\geq 10$  patient responses at 3 and 6 months. Within this cohort of surgeons, we evaluated the relationship between surgical volume and patient reported UF score by calculating the correlation coefficient.

**RESULTS:** Of 61 PRO surgeons, 56 had  $\geq 50\%$  patient enrollment and 21 had  $\geq 10$  patients respond at 3 and 6 months. APV ranged from 10 to 153. Analysis, after controlling for age, race, BMI, grade, stage, comorbidity, and PSA, demonstrated poor correlation between UF score and APV at both 3 ( $r = 0.13$ ) and 6 months ( $r = 0.21$ ). Figure 1, the scatter plot of UF score at 6 months vs. surgeon APV, demonstrates some clustering of low volume surgeons to lower scores, however, no clearly discernable trend towards improved UF score with increasing surgical volume.

**CONCLUSIONS:** In contrast to much of the surgical literature that associates increasing surgeon volume with improved surgical outcomes, we did not demonstrate significant correlation between surgeon APV and UF score following RP. Notably, our work is limited by our inability to control for significant patient level factors, which may affect early return of UF. Despite this limitation, our work suggests that surgeon factors, other than surgical volume, affect UF. Therefore, as the collaborative seeks to identify best practices, attention should be given to high performers regardless of APV. Further, patients and surgeons should be encouraged that superb outcomes are attainable even in smaller practices.

Figure 1. Six month Urinary Function Score by Surgeon Annualize Prostatectomy volume



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